



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

MAR 30 2000

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-E 10319
(SECOND REVISION)

EXPIRATION DATE: February 28, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Amtrol, Incorporated
West Warwick, Rhode Island
2. PURPOSE AND LIMITATIONS:
 - a. This exemption authorizes the manufacture, mark, sale and use of non-DOT specification pressure vessel (water pump system tank) for use in the shipment of Division 2.2 materials. This exemption provides no relief from any Hazardous Materials Regulation other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302(a) and 173.306(g).
5. BASIS: This exemption is based on the application of Amtrol, Incorporated dated March 17, 2000, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Compressed gas	2.2	UN1956	N/A
Nitrogen compressed	2.2	UN1066	N/A

MAR 30 2000

Continuation of DOT-E 10319 (2nd Rev.)

Page 2

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a welded, non-DOT specification cylindrical pressure vessel (water pump system tank) designed for a working pressure of 100 psig. Pressure vessels are not ASME Code "U" stamped. However, each pressure vessel must be welded in accordance with Section IX of the ASME code. Size and dimensions must be in accordance with the following:

<u>Drawing No.</u>	<u>Model</u>	<u>Outside Diameter (in.)</u>	<u>Volume Capacity (gal.)</u>
184-13	WX-421	30	165
185-13	WX-422	30	220
186-13	WX-423	36	275
181-13	WX-424	36	325
187-13	WX-426	48	440
188-13	WX-427	48	550

In addition:

1. Each pressure vessel must be hydrostatically pressure tested to at least 150 psig.
2. Safety relief devices are not required for shipment.
3. Each pressure vessel must be shipped in a strong outside shipping packaging or crate, or shipped mounted on skids, designed to protect any valves from damage or projections from the pressure vessel under conditions normally incident to transportation.
4. Charge pressure may not exceed 50 psig.
5. The burst pressure of each pressure vessel must be at least 6 times the charge pressure at 70°F.
6. The stress at prescribed test pressure may not exceed 20,000 psi using the formula:

MAR 30 2000

$$S = Pd / 2t$$

where:

S = wall stress in pounds per square inch;
P = prescribed test pressure for the tank of at least 150 psig;
d = inside diameter in inches;
t = minimum wall thickness, in inches.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. Each packaging manufactured under the authority of this exemption must be plainly and durably marked "DOT-E 10319."

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this

exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

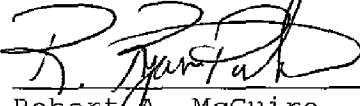
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.


for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

MAR 30 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: AM(00)